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(April 1, 2009) Two Iowa State University research farms are growing sugar beets to determine their biofuel potential in Iowa.

The research is being conducted at the Muscatine Island Research and Demonstration Farm in Fruitland and the Southeast Research and Demonstration Farm, which is located near Crawfordsville.

"Our work is important because it will provide estimates of potential sugar beet yield so work can begin on developing realistic energy budgets and profitability of using sugar beets as a biofuel," said Vince Lawson, superintendent of the Muscatine Island research farm.

Although the research on sugar beets is in the early stages, the crop is very efficient at making sugar, the primary ingredient converted to ethanol. The goal of the research project is to determine if sugar beets would be a valuable alternative crop to grow for ethanol production.

The trial began in April 2008, where a half-acre was planted at each farm. The Southeast research farm project found that on average, 5.5 tons of sugar could be extracted from 35.4 tons of beets. Those 5.5 tons of sugar would end up making 898 gallons of ethanol. Similarly, the Muscatine Island research farm produced an average of 4 tons of sugar, which were extracted from 24.7 tons of beets.

Lawson said that the crop was shown to have potential and the next step is to continue planting more sugar beets in 2009 and fine-tune some fertility and production problems that were identified in 2008.

Heartland Renewable Energy and Syngenta provided the funding and support of the research project.

Heartland Renewable Energy plans to build an ethanol plant in Muscatine in 2011. Syngenta provided seed for four types of sugar beet varieties.

Iowa State is a leader in biofuel research, continually looking for alternative answers to energy issues. Other research occurring on campus includes:

Advanced corn-to-biofuel research that looks toward enhancing the conversion of corn to ethanol and improving efficiencies in the production.

A multidisciplinary look at soybeans to develop opportunities for this in-demand crop. Soybeans are alternative sources for bio-based energy, biolubricants and used for food and feed.

Development of sustainable cropping systems that are focused on benefiting biofuel production. This research focuses on soil erosion, degrading of soil organic matter and requirements for energy-intensive fertilizers.

More information on Iowa State's research can be found by going to: <http://www.biorenew.iastate.edu/research.html>www.biorenew.iastate.edu/research.html.

